EDITORIAL

Older people and medications: what is the right prescription?

B. Nair, Professor and Director, Geriatric Medicine, John Hunter Hospital, Newcastle, N.S.W.

Index words: adverse effects, drug utilisation, pharmacovigilance.

(Aust Prescr 1999;22:130-1)

Australia, like many other countries, has an ageing population. Old age is associated with chronic diseases and disabilities, which in turn require multiple medications. In 1996, 178 million prescriptions were written in Australia. Approximately 40% of these prescriptions were for people over the age of 65, who constitute only 12% of the population. General practitioners write 64% of these prescriptions.[1]

Our own survey found that in a major teaching hospital, 30% of older people were on 6-10 types of medications and 13% were taking more than 10 types of medications each day. Up to 22% of emergency admissions for elderly people are drug-related.[2]

Why are adverse drug reactions so frequent in older people? With old age there are changes in both pharmacokinetics and pharmacodynamics. Cognitive dysfunction, poor vision, poor hearing and arthritis of the hands make for difficulties in taking medicines as prescribed. Frailty is also associated with more adverse drug reactions. With rapid growth in the population of very old people (above 80 years old), adverse drug reactions are likely to increase, unless we are vigilant! Vigilance is important because up to 69% of adverse effects are predictable and preventable.[3]

What about the benefits of treatment? Are older people getting the evidence-based medication they deserve? The answer is no. We know now that systolic hypertension is a common disorder in older people and is a good predictor of cardiovascular and cerebrovascular morbidity and mortality. There are many randomised controlled trials to prove the efficacy and effectiveness of treatment of systolic hypertension. This knowledge has not been translated into clinical practice and improved outcomes for patients. Again, from randomised controlled trials, we know older people with atrial fibrillation may benefit from long-term anticoagulation. How many of our patients with atrial fibrillation are offered this treatment and make an informed choice?

Much has been written about drug prescribing and adverse effects, but what about evidence-based drug cessation? We have few data on this important topic. For example, should we stop antihypertensives in a 90-year-old patient? This issue will be debated when we have new treatments for Alzheimer's disease on the Pharmaceutical Benefits Scheme. When will it no longer be cost-effective to continue treating someone with dementia-modifying drugs? Similar dilemmas occur with lipid-lowering drugs and gout treatment.

Meanwhile, public interest in drug safety is increasing and 'pharmacovigilance' is the only answer. This can be achieved by spontaneous reporting of adverse drug reactions, or reviewing computerised prescriptions.[4] To make pharmacovigilance work, we need better communication between patients and health professionals.

We should make the whole health care system work better for older people. Patients, community, nurses, general practitioners, hospital staff and pharmacists should work together. Communication between all these professionals is vital to improve our prescriptions and thereby patient outcomes. One good example is the initiative by the Royal Australian College of General Practitioners and the Pharmaceutical Society of Australia, to improve communication between general practitioners and pharmacists. Simple things like writing the purpose of the medication on the label are appropriate and effective provided privacy issues are considered. Initiatives like this are cost-effective too! In some studies, net savings of $110 per patient per year have been achieved.[1] Another good example is psychotropic drug prescribing in nursing homes. In 1993, over 50% of the residents in Sydney nursing homes were taking antipsychotic drugs or benzodiazepines.[5] A repeat survey in 1998, after educational interventions, found a

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Alternative treatments are increasing in popularity, so the review of antioxidants by Mark Wahlqvist and Naiyana Wattanapenpaiboon is appropriate. The medicinal powers of plants are nothing new, digitalis has been used for years and Christopher Semsarian tells us that digoxin will continue to be used in the next millennium.

Some new drugs are destined not to share the longevity of digoxin. Rod Hall reveals why some drugs disappear from the market. Other drugs find new uses and Guy Bashford informs us about the role of anticonvulsants in neuropathic pain.

significant and appropriate reduction in these prescriptions. Prescription of psychotropic drugs fell from 59% to 48.5% while benzodiazepine prescriptions fell from 32% to 23%.

The Australian Pharmaceutical Advisory Council and the Pharmaceutical Health and Rational Use of Medicines Committee are government initiatives to encourage judicious, appropriate, safe and evidence-based drug prescribing. An independent body, the National Prescribing Service, is also beginning to work in this area[6] along with existing resources such as *Australian Prescriber*. The Department of Veterans' Affairs funds health reviews for veterans where the doctor or a consultant pharmacist carries out an annual medication review. The accreditation process for nursing homes under the new Aged Care Reform will also require review of medication use. All these initiatives are to be applauded and supported.

This year is the International Year of the Older Person. Now is the time to review what we have been doing in the past and aim for the best available care for our seniors. Their future is in our hands. Quality use of medicines will increase quality without reducing quantity of life!

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Letters

Letters, which may not necessarily be published in full, should be restricted to not more than 250 words. When relevant, comment on the letter is sought from the author. Due to production schedules, it is normally not possible to publish letters received in response to material appearing in a particular issue earlier than the second or third subsequent issue.

Asthma treatments

Editor, - Professor Seale provides an informative and helpful account of the role of anti-leukotriene drugs in asthma (Aust Prescr 1999;22:58-60), contrasting with the somewhat irrational claims of their benefits in the lay press. It raises the issue of how to assess the benefits of asthma medication. A recent study[1] advocated use of inhaled budesonide to prevent asthma relapse following discharge from the emergency department. Improved outcomes were measured by reduced relapse (defined as unscheduled visits for worsening symptoms), improved scores on an Asthma Quality of Life Questionnaire, and improved symptom scores. However there were no differences between treatment groups in measures of peak expiratory flow rates. If there is no difference in measured respiratory function, what is the significance of the other outcome measures, and what is the optimum method to assess if a patient is helped by a new intervention? If a patient says they feel better, possibly from a placebo effect of a perceived 'wonder drug', should they be continued on a new and expensive medication if there is no other measure of improvement?

Brendon Smith
Staff Specialist
Emergency Department
Sutherland Hospital
Caringbah, N.S.W.

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Dr Helen Reddel, Research Scholar, Institute of Respiratory Medicine, Royal Prince Alfred Hospital and University of Sydney, comments:

Dr Smith raises an important issue about how we should assess response to asthma medications. As there is no 'gold standard' for asthma, we need to assess both subjective (symptoms, quality of life) and objective (lung function, airway responsiveness) aspects of asthma control. A marked discrepancy between the results for different outcome measures may be due to methodological problems, as seems likely in the quoted study.

The methodology for assessing relapse rate, symptoms and quality of life in this study appear to be valid, but there may be problems with the assessment of lung function. The study was designed to examine risk of asthma exacerbations, so the most appropriate lung function measure would have been peak expiratory flow performed on waking, as 'morning dipping' is associated with risk of asthma exacerbation. Lung function rises during the day even in poorly-controlled asthma, so spirometry measured at clinic visits (as in this study) would be less likely to show a difference between treatment groups. In addition, it is not clear from the paper whether lung function was measured in patients who experienced relapse and were therefore withdrawn before the 21 day assessment; if not, censoring of data from treatment 'failures' would significantly reduce the chance of observing a difference in lung function between the groups.

Dr Smith's comments about the 'placebo effect of a perceived "wonder drug" ' highlight the importance of assessing the value of a new medication from a series of well-designed randomised controlled trials rather than from anecdotal reports.